

Notice of Allowability

Application No.

09/662,192

Examiner

Prasad R Akkapeddi

Applicant(s)

COLGAN ET AL.

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/16/2004.
2. ☒ The allowed claim(s) is/are 1-38.
3. ☒ The drawings filed on 14 September 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments see Appeal Brief, filed 1/14/2004, with respect to claims 1-38 have been fully considered and are persuasive. The final rejection and the advisory action of 06/12/2003 and 12/14/2003 have been withdrawn. The withdrawal of the previous actions was based on a careful re-evaluation of the applicant's arguments and the teachings of the cited prior art when compared to the recited limitations in the instant claims.

Allowable Subject Matter

2. Claims 1-38 are allowed.
3. The following is an examiner's statement of reasons for allowance:

A search of the prior art did not disclose a liquid crystal light valve, a projection-type liquid crystal display device and a method for producing a liquid crystal light valve comprising a combination of structural elements, more specifically:

- (a) A light- blocking layer formed below the light-reflecting films
- (b) A second insulating layer formed between the light-reflecting films and the light-blocking layer.
- (c) A stud that is configured to electrically connect the electric circuit and the light-reflecting films

(d) Light shields provided on the light-blocking layer formed below the light-reflecting films.

(e) A third insulating layer formed between the light shields and the light-reflecting films.

(f) At least one of the light shields and the light-blocking layer is configured to block the incident light from the electric circuit.

(g) The method steps of boring a groove for a stud in the second insulating layer and the first insulating layer; forming grooves for light shields in the second insulating layer; forming a stud in the hole in the light-blocking layer and in the grooves in the first and second insulating layers and the stud configured to electrically connect the light-reflecting films and the electric circuit; removing the third insulating layer from upper surface of the stud.

The cited prior art by Sato does not teach all the recited limitations as pointed out by the applicant. The Examiner has wrongfully identified the element (141) in Sato reference as the stud. The second insulating layer (150) and the third insulating layer (170) in Sato reference are not on top of each other instead there is a light reflecting film (160) is placed in between, where as in the instant application, the second insulating layer (22) and the third insulating layer (50) are on top of each other as can be seen from Fig. 1 of the instant application. In addition, the light -blocking layer (20) in the instant application is below the light-reflecting films (24), whereas Sato teaches that the light-blocking layer (163) is a part of the light-reflecting film (160).

For the reasons given above, the Examiner concurs with the applicant's arguments and the teachings of Sato do not apply to the recited limitations in the instant application. The instant claims 1-38 would be allowable at least for the reasons indicated above. It is noted that claims 7,8,18,19,30, 37 and 38 were previously identified as either allowable or would be allowable if written in an independent form

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 571-272-2285. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRA

Prasad R Akkapeddi, Ph.D
Examiner
Art Unit 2871


ROBERT H. KIM
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